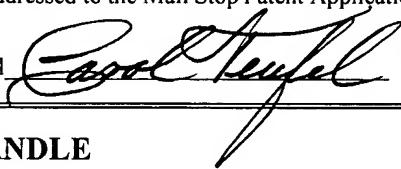


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MULTI-COLOR BRUSH HANDLE

PATENT APPLICATION

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Docket No.: 04905.010

Assignee: Bao Sheng Corporation

Related Applications

This patent application claims priority to U.S. Provisional Patent Application Serial No. 60/501,779 filed on September 10, 2003, which hereby is incorporated by reference in its entirety.

Technical Field of the Invention

[0001] The present invention relates to the brushes, particularly brushes for applying cosmetics. More specifically, the present invention relates to brushes having multi-colored brush handles.

Background of the Invention

[0002] Cosmetic brushes are used to apply all types of cosmetics, such as blush and powder. Cosmetic brushes have been improved throughout the years to allow users to apply makeup more evenly so that the makeup is distributed and balanced between each side of a face and to control the amount of makeup that is applied.

[0003] Most cosmetic brushes have a solid one-color brush handle. In the ever increasingly competitive cosmetic industry, a need exists to be able to make your brush more aesthetically pleasing than other brushes. One way of doing this is by adding color and variety to cosmetic

brushes. It would be advantageous to provide a multi-colored brush handle that makes the brush stand out when compared to prior art brushes. It would also be advantageous to provide a multi-colored handle that could be varied with different colors and different patterns.

SUMMARY OF THE INVENTION

[0004] In order to meet one or more of these goals, the present invention advantageously provides a brush with a multi-colored brush handle. The multi-colored brush handle contains at least one vertical chamber that is capable of receiving a colored epoxy resin material or an injection molded or extruded colored resin pipette. The colored epoxy will allow greater geometry change than the colored pipette due to its ability to flow into the handle. The chamber can have a cylindrical cross-sectional shape. More than one chamber can be present in the multi-colored brush handle. A single chamber that is divided into a plurality of segments can also be used. Each segment can hold a different colored material within it.

[0005] The brush handle is typically produced by injection molding techniques. The brush handle can be made of polystyrene, which allows the brush handle to be transparent so that the colored materials contained within the chamber can be seen through the handle. The combination of the colored material and clear handle provide a unique visual effect.

[0006] The handle is preferably molded with a through-hole to minimize core displacement during molding. The bottom of the handle can then be filled with an epoxy resin material to fill or close the through-hole and to secure the colored material within the chamber. The bottom of the handle is then sanded and buffed to eliminate any visual defects from the through-hole.

[0007] Other geometric designs, such as a helical flight, can also be used in the formation of the chamber to provide different looks in the multi-color brush handle. Other geometric designs will be known to those skilled in the art and are to be considered within the scope of the present invention.

[0008] The number of chambers within the brush handle can be varied depending upon the diameter of the brush handle and the desired color effect. Additional colors can be added to the brush handle by increasing the number of chambers within the handle. If a single-chamber is used, the number of segments within the single chamber can be varied. Each segment can contain a different colored material.

Brief Description of the Drawings

[0009] So that the manner in which the features, advantages and objects of the invention, as well as others which will become apparent, may be understood in more detail, more particular description of the invention briefly summarized above may be had by reference to the embodiment thereof which is illustrated in the appended drawings, which form a part of this specification. It is to be noted, however, that the drawings illustrate only a preferred embodiment of the invention and is therefore not to be considered limiting of the invention's scope as it may admit to other equally effective embodiments.

[0010] FIG. 1 is a perspective view of a first embodiment of a multi-colored brush handle having a plurality of chambers within the handle in accordance with the present inventions.

[0011] FIG. 2 is a cross-sectional view of the handle of FIG. 1, taken along the line 2 – 2 in FIG.1.

[0012] FIG. 3 is a perspective view of a second embodiment of a brush handle in accordance with the present inventions.

[0013] FIG. 4 is a cross-sectional view of a third embodiment of a handle in accordance with the present inventions.

[0014] FIG. 5 is a cross-sectional view of the handle of FIG. 3, taken along the line 5-5 in FIG. 3.

[0015] FIG. 6 is a simplified block diagram of the process of forming a multi-colored brush handle in accordance with the present inventions.

Detailed Description of the Drawings

[0016] FIG. 1 illustrates a brush 10 made in accordance with the present invention. Brush 10 generally comprises a brush handle 12, a ferrule 14, and a tuft of bristles 16. Brush handle 12 is connected to ferrule 14, which is connected to tuft 16. Brush handle 12, ferrule 14, and tuft 16 are typically connected by gluing, but other means of connecting the components can be used.

[0017] Brush handle 12 is a solid, generally cylindrical member that preferably contains at least one vertical chamber 18. Vertical chamber 18 preferably extends through a vertical length of brush handle 12. FIG. 1 illustrates brush handle 12 having three holes or cylindrical chambers 18a, 18b, 18c within handle 12, each with a cylindrical cross-sectional shape, contained therein. In this embodiment, each chamber 18a, 18b, and 18c has a separate axis. Each chamber 18a, 18b, 18c is a separate clear plastic tube. Chambers 18 are capable of receiving an injection molded resin or pre-formed extruded colored resin rod or pipette 20. Each chamber 18 preferably includes a different colored pipette 20 within each chamber 18. Pipettes 20 generally extend vertically through brush handle 12 and substantially fill chambers 18a, 18b, and 18c. Pipette 20 can be constructed of a polyolefin material, such as polyethylene or polypropylene. Other suitable materials will be known to those skilled in the art. Pipette 20 can be of hollow or solid construction.

[0018] Chambers 18 are generally vertical cavities within brush handle 12. The number of chambers 18 can be varied depending upon the desired color effect and the diameter of brush handle 12.

[0019] Brush handle 12 is typically produced by injection molding techniques, as understood by those of ordinary skill in the art. Brush handle 12 can be made of polystyrene, which allows

brush handle 12 to be transparent, or clear, so that the colored resin pipettes 20 can be seen through brush handle 12. Chambers 18 can be formed in a solid brush handle 12 or can be tubes inserted into a hollow brush handle 12. The combination of pipettes 20 and clear brush handle 12 provide a unique visual effect. The bottom 24 of brush handle 12 can be molded with a through-hole 22 for each chamber 18 to minimize core displacement during molding. After pipettes 20 are inserted into chamber 18, through hole 22 of brush handle 12 is then filled with an epoxy resin material to close the through-hole 22 and to secure each pipette 20 within each cylindrical chamber 18. Bottom 24 of brush handle 12 is then sanded and buffed to eliminate any visual defects from the through-holes 22.

[0020] The present invention also advantageously provides a method of forming a brush 10 having a multi-colored brush handle 12, as described in FIG. 6. The method of forming brush 10 preferably includes the step of molding a polystyrene material to form a substantially cylindrical body 12 (block 60). A through-hole 22 is preferably molded at a bottom 24 of the cylindrical body 12 to minimize core displacement during molding.

[0021] The substantially cylindrical body 12 is molded with at least one cavity or chamber 18 that extends vertically through a substantial portion of the cylindrical body. Chamber 18 can then be filled with at least one colored material or pipette 20 (block 65). The colored material can be a colored epoxy resin, a colored polyolefin pipette 20, or a combination of the two. For example, if there are two chambers 18, one could be filled with the colored epoxy resin in liquid form and the other could be filled with a colored pipette. The colored material is then secured within chamber 18 (block 70), preferably by injecting a liquid epoxy resin within the through-hole and allowing the epoxy resin to harden. A bottom of the cylindrical body can be finished to

remove any visual defects (block 75). Such finishing techniques can include buffing and sanding the bottom of the cylindrical body.

[0022] Handle 12 can preferably then be attached to ferrule 14. Ferrule 14 can preferably be attached to a tuft of bristles 16. The combination of the handle 12, ferrule 14, and tuft of bristles 16 forms a complete multi-colored brush 10.

[0023] Handle 12 can be used in various types of applications, such as makeup brushes and paintbrushes. Other uses will be known to those of ordinary skill in the art and are to be considered within the scope of the present invention.

[0024] Other geometric designs, such as a helical chamber or passage 26 illustrated in FIG. 3, can also be used in the formation of cylindrical chambers to provide different looks in brush handle 38. Once helical flight 26 is filled with a colored material 40 (not shown), helical flight 26 can be seen through brush handle 38. Other geometric designs will be known to those skilled in the art and are to be considered within the scope of the present invention. Helical chamber 26 can be partitioned into a plurality of segments 39 with more than one colored material 40 contained within each segment 39 with helical flight 26, as shown in FIG. 5, or it could have only one material. Colored material 40 is preferably an epoxy that is injected in liquid form.

[0025] As shown in FIG. 4, cylindrical chamber 18 can be a single chamber 28 with a plurality of segments, or portions, 29 with each segment 29 having a different color contained therein. Segments 29 are divided with a Y-shaped divider 32 that extends an entire length of chamber 28 and divides segments 29 into three separate chambers, each being non-cylindrical. Each segment 29 has a pie-shaped cross-sectional area with two straight sides 30 in common with adjacent ones of the chambers and a curved side 31 that joins the other chambers to form a cylinder. Segments

29 can be filled with liquid epoxy or a colored pipette 20, as in other embodiments of the present invention. The number and shape of segments 29 can be changed by dividing the segments with a divider having a different cross-sectional shape. For example, a divider having an X-shaped cross-sectional area would create four separate segments that could each be filled with a different colored material therein.

[0026] As an advantage of the present invention, the brush handle and resulting brush will be aesthetically pleasing to consumers. The brush handles of the present invention can be colorful and bright. As another advantage, the brush handles can be customized with different colors or shapes. For instance, during patriotic time periods, a brush handle containing three cylindrical chambers could be used with red, white, and blue colored pipettes or epoxy resins, which would result in a patriotic brush handle with red, white, and blue showing through the brush handle. This is particularly advantageous when used as promotional sale items as times, such as Christmas and the Fourth of July.

[0027] While the invention has been shown or described in only some of its forms, it should be apparent to those skilled in the art that it is not so limited, but is susceptible to various changes without departing from the scope of the invention. For example, different types of materials can be used for the brush handle or the colored material within the cylindrical chambers. As another example, the handles can be used for various types of brushes, such as paintbrushes and hairbrushes. Also, multiple chambers, each with separate segments, could be used rather than the single chamber of FIG. 4.